

Amet Vikram

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Experience

Deutsche Bank | Senior Analyst

Aug 2020 – Jul 2024

- Worked as part of Product Governance team, developing and delivering strategic continuous business solutions and enhancements with actively involved in **PI estimations** and **PI planning** of business features and requirements in cross-functional collaboration and **business stakeholder engagement** discussions for New Product Approval(NPA) tool system.
- Analyzed **600K** records of loss-making events and applied **clustering algorithms**, **DBSCAN**, and **K-Means** for categorical data and **Natural Language Processing** for textual data to find correlation among them, helping the business to find the root causes and impact of the loss events and their linkages.
- Designed and developed a dashboard where business users can search and get a holistic view of Permitted Products within the organization by implementing complex database solutions using **query execution plan optimization**, **SQL analytical functions**, **hierarchical queries** and **advanced join techniques like (CROSS APPLY, OUTER APPLY, SEMI JOIN)**
- Single-handedly implemented a **new data model** to retrieve data from a third-party **data producer (OPUS & CCO)** as part of the Data Lake Migration, performed data engineering, and ran multiple SQL scripts to maintain **data consistency for the existing 100K records** with the updated data model. **Recognized** in RFT Success Story for this delivery. [**Biggest Team Delivery - 2021**].
- Led **end-to-end design and development of Criteria-Driven Approvals** and **Condition-Driven Products** by implementing complex **JPA Criteria API queries** and creating new dashboards for a highly interactive and responsive UI using ReactJS. **Recognized** and appreciated in email chain by Product Owner and NPA Team for this delivery. [**Biggest Team Delivery - 2023**].
- Successfully deployed and maintained **Elasticsearch** and **Logstash** to enhance search functionality, enabling **efficient data retrieval** in a high-volume production environment for Permitted Products Library(PPL).
- Designed a feature for monitoring the execution of **Spark jobs** by generating and analyzing **SLA and Execution metrics** using real-time data from the Spark History Server, offering developers valuable insights to enhance efficiency and optimize performance.
- Developed a **React Native** Android app as part of a hackathon, incorporating **Text and Voice Sentiment Analysis** and an **AI Chatbot**, to provide support for individuals battling mental health challenges.
- Owning Practice Deployment activities for major releases, while also ensuring stability and support for pre-prod environments.

IBM | Software Engineer Intern

Jul 2019 – Dec 2019

- Successfully integrated Apple's social login identity feature, "**Sign in with Apple REST API 1.0**", into the **IBM Cloud Identity Connect** software.
- Gained in-depth knowledge of industry-standard **authentication protocols**, including **OAuth 2.0**, **OpenID Connect**, and **SAML**.
- Developed comprehensive **unit tests for the Health Check API**, ensuring reliable performance across various microservices within the IBM Cloud Identity Connect platform and generated detailed **code coverage reports** to identify untested code paths and improve overall test coverage.

Skills

- **Programming Languages:** Python, C++ , Java, R, SQL, Javascript, Typescript, C
- **Frameworks/Libraries/Tools:** Apache Spark, Hadoop, Spring, Spring Boot, React JS, OracleSQL, MySQL, TensorFlow, Keras, scikit-learn, NumPy, Pandas, Matplotlib, OpenCV, Microsoft Excel, Google Cloud Platform, Docker, Git, Neovim, Latex
- **Relevant Coursework:** Machine Learning, Data Mining, Neural Networks and Fuzzy Logic, Data Structures and Algorithms, Design and Analysis of Algorithms, Number Theory, Database Management Systems, Operating Systems, Object Oriented Programming, Software Engineering

Education

Rutgers University - New Brunswick

Jul 2024 – Present

Master of Science in Statistics

B.I.T.S Pilani University

Aug 2016 – May 2020

Bachelor of Engineering in Computer Science

Certifications

- **Coursera** - Deep Learning Specialization, Algorithms on Strings (UC San Diego), Algorithms on Graphs (UC San Diego), Software Architecture (University of Alberta), Service Oriented Architecture (University of Alberta)
- **Google Cloud Skills Boost** - Deploy to Kubernetes in Google Cloud, Automating infrastructure on Google Cloud with Terraform, Google Cloud Essentials

Academic Projects

Object Localization using CNN | Python, Keras, Pandas, Matplotlib, Numpy, Pillow

- Developed a Deep Convolutional Neural Network (CNN) model specifically designed for object detection within images.
- Outputs the bounding box coordinates that encapsulate the detected object.
- Trained the CNN model on a large dataset consisting of over 14,000 images which included a diverse range of objects, ensuring robust model performance across various scenarios.
- Utilized data augmentation methods to improve model generalization and performance.

Creating a Linked-Data enabled smart client | Python, Flask, FastAPI, Docker, Redis,

- Implemented a smart client that integrates Linked Data principles with Spotify's API that uses Semantic Web to enhance data interoperability and usability in a real-world application.
- Utilized Resource Description Framework (RDF) and other Semantic Web standards to structure and represent data in a way that is both machine-readable and human-understandable and ensured that the client could query and retrieve data from Spotify's API, then transform it into a semantically enriched format.

Reinforcement Learning Model for solving CartPole-v1 problem | Python, Tensorflow, Numpy, Matplotlib, OpenAI Gym

- Implemented a reinforcement learning model using Q-learning algorithm to train the agent.
- State space included key variables such as the cart's position, the pole's angle, the cart's velocity, and the pole's angular velocity with action space limited to applying a force either to the left or right.
- Incorporated noise into the action and sensor parameters to simulate real-world challenges, ensuring that the model is robust and adaptable to uncertainties.

Awards/Achievements

- DB Recognition Award – For exemplary performance and great contribution in a quarter.
- Certified SAFe5 Agile Practitioner
- Ranked 58 in level 3 among 6000 teams in Flipkart GRiD – Te[a]ch The Machines — 2019
- Scored 370/450 in BITSAT (Top 0.22%)